3.2 AIR QUALITY

This section evaluates the potential air quality impacts that could result from construction and operation of the proposed project. This includes the potential for the proposed project to conflict with or obstruct implementation of the applicable air quality plan, violate an air quality standard or contribute substantially to an existing or projected air quality violation, result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people. Documents used in preparation of this section include the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook* and the *1997 Air Quality Management Plan* (AQMP), as amended, as well as federal and State regulations and guidelines. Finally, mitigation measures intended to reduce impacts to air quality are proposed, where appropriate.

The Initial Study determined that impacts associated with the creation of objectionable odors are less than significant, and, therefore, no further analysis is required.

3.2.1 Environmental Setting

Air Quality Background

The proposed project site is located within the South Coast Air Basin (Basin), named so because its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. This area includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. A wide range of emissions sources influence the air quality within the Basin, including dense population centers, heavy vehicular traffic, industry, and meteorology.

Air pollutant emissions within the Basin are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources occur at identified locations and are usually associated with manufacturing and industry. Examples are boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, portable generators, lawn mowers, agricultural fields, landfills, and consumer products, such as barbeque lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on road or off road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and construction vehicles. Mobile sources account for the majority of the air pollutant emissions within the Basin. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled of off the ground surface and suspended in the air during high winds.

In order to protect public health, both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants. The national and State standards have been set at levels which concentrations could be generally harmful to human health and welfare and to protect the most sensitive

persons from illness or discomfort with a margin of safety. Applicable standards are identified later in this EIR section. The SCAQMD is responsible for bringing air quality within the Basin into conformity with the federal and State standards.

The air pollutants most relevant to air quality planning and regulation in the Basin include ozone, carbon monoxide (CO), fine particulate matter (PM_{10}), sulfur dioxide (SO_2), and lead. In addition, toxic air contaminants are of concern in the Basin. Each of these is briefly described below along with their adverse health effects.

- *Ozone* is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable.
- *Carbon Monoxide* is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines—unlike ozone—and motor vehicles operating at slow speeds are the primary source of CO in the Basin, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- *Fine Particulate Matter (PM_{10})* consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM_{10}, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM_{10} is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- *Sulfur dioxide* is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries.
- *Lead* occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles, such as racecars. Other sources of lead include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.
- *Toxic Air Contaminants* refers to a diverse group of air pollutants that can affect human health, but have not had ambient air quality standards established for them. This is not because they are fundamentally different from the pollutants discussed above, but because their effects tend to be local rather than regional.

Existing Regional Air Quality

The entire Basin is designated as a federal-level extreme nonattainment area for ozone—meaning that federal standards are not expected to be met for more than 17 years—and a nonattainment area for CO and PM_{10}. The Basin has recently improved from nonattainment to attainment with the national standard for nitrogen dioxide (NO_2)—a pure form of NOx. The Basin is a State-level nonattainment area for ozone, CO (Los Angeles County only), and PM_{10}.

In an effort to monitor the various concentrations of air pollutants throughout the Basin, the SCAQMD has divided the region into 27 source receptor areas (SRAs) in which 31 monitoring stations operate. The proposed

project site is located within SRA 8, which covers the West San Gabriel Valley area. Table 3.2-1 identifies the national and State air quality standards for relevant air pollutants, along with the ambient pollutant concentrations that have been measured within SRA 8 through the period of 1999 to 2001.

Table 3.2-1 Summary of Ambient Air Quality in the Project Vicinity

Pollutant	Air Quality Standards	Year		
		1999	2000	2001
SRA 8—West San Gabriel Valley				
OZONE				
Maximum 1-hour concentration	—	0.12 ppm	0.16 ppm	0.16 ppm
Number of days exceeding federal 1-hour standard	>0.12 ppm	0	7	1
Number of days exceeding State 1-hour standard	>0.09 ppm	15	19	28
Maximum 8-hour concentration		0.10 ppm	0.13 ppm	0.12 ppm
Number of days exceeding federal 8-hour standard	>0.08 ppm	4	14	9
CARBON MONOXIDE (CO)				
Maximum 1-hour concentration	—	9.0 ppm	9.0 ppm	7.0 ppm
Number of days exceeding federal 1-hour standard	>35.0 ppm	0	0	0
Number of days exceeding State 1-hour standard	>20.0 ppm	0	0	0
Maximum 8-hour concentration	—	6.6 ppm	7.4 ppm	5.0 ppm
Number of days exceeding federal 8-hour standard	≥9.5 ppm	0	0	0
Number of days exceeding State 8-hour standard	>9.0 ppm	0	0	0

ppm Parts by volume per million of air
$\mu g/m^3$ Micrograms per cubic meter of air
Ambient concentrations of PM_{10} are not monitored within SRA 8.

Sources: SCAQMD 2000, and 2001; California Air Resources Board, 2002

Existing Local Air Quality

The vicinity of the project site consists primarily of residential land uses. Local emissions sources include stationary activities, such as space and water heating, landscape maintenance, consumer products, and mobile sources (primarily automobile and truck traffic).

Motor vehicles are the primary source of pollutants within the project vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or State standards for CO are termed CO "hotspots." Section 9.4 of the SCAQMD's *CEQA Air Quality Handbook* identifies CO as a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots.

The SCAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to ambient CO air concentrations. For this analysis, CO concentrations were

calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and accepted by the SCAQMD. The simplified model is intended as a screening analysis that identifies a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case, CO concentrations.

Maximum CO concentrations were calculated for the intersection of Chevy Chase Drive and Figueroa Street, which is in close proximity to the project site. The results of these calculations are presented in Table 3.2-2 for representative receptors located 25, 50, and 100 feet from the roadway. As shown, existing CO concentrations near this intersection do not exceed federal or State ambient air quality standards. Therefore, CO hotspots do not exist near this intersection.

Table 3.2-2 Existing Localized Carbon Monoxide Concentrations

	CO Concentrations in Parts per Million					
	25 feet		50 Feet		100 Feet	
Intersection	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Chevy Chase Dr. & Figueroa St.	9.4	6.0	9.3	5.9	9.2	5.8

Federal 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.
Federal 8-hour standard is 9.5 parts per million. State 8-hour standard is 9.1 parts per million.

Source: EIP Associates, 2002. Calculation sheets are provided in Appendix C.

Existing Site Emissions

The proposed project site is undeveloped and vacant and presently does not support uses that would generate regional or local emissions on a regular basis.

3.2.2 Regulatory Framework

Air quality within the Basin is addressed through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the Basin are discussed below.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (U.S. EPA) is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The U.S. EPA also jurisdiction over emissions sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a state implementation plan (SIP) that demonstrates the means to attain the federal standards. The

SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs.

California Air Resources Board

The California Air Resources Board (ARB), a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, the ARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and State government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures though educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs). The Governing Board of the SCAQMD adopted the most recent of these on November 16, 1996. This AQMP, referred to as the 1997 AQMP, was prepared to comply with the federal and State Clean Air Acts and amendments, accommodate growth, reduce the high pollutant levels of pollutants in the Basin, meet federal and State air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. The Governing Board adopted an amendment to the ozone portion of the 1997 AQMP on December 10, 1999. Principal control measures of the AQMP focus on adoption of new regulations or enhancement of existing regulations for stationary sources and implementation/facilitation of advanced transportation technologies (e.g., telecommunication, zero-emission and alternative-fueled vehicles and infrastructure, and both capital and non-capital transportation improvements). Capital improvements consist of high occupancy vehicle (HOV) lanes, transit improvements, traffic flow improvements, park and ride and intermodal facilities, and urban freeway, bicycle, and pedestrian facilities. Non-capital improvements consist of rideshare matching and transportation demand management activities derived from the congestion management program.

The future air quality levels projected in the 1997 AQMP and the 1999 Amendment are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the Regional Comprehensive Plan and Guide (RCPG). The AQMP also assumes that general development

projects will include strategies (mitigation measures) to reduce emissions generated during construction and operation.

City of La Cañada Flintridge

Local jurisdictions, such as the City of La Cañada Flintridge, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City of La Cañada Flintridge is also responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

3.2.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project may have a significant air quality impact if it would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make these determinations. As the agency principally responsible for comprehensive air pollution control in the Basin, the SCAQMD recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the CEQA Air Quality Handbook.

3.2.4 Impacts

Less-Than-Significant Impacts

Daily Operational Emissions

Operational emissions would be generated by both stationary and mobile sources as a result of normal, day-to-day activities on the project site after occupation. Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices and the operation of landscape maintenance equipment. Mobile emissions would be generated by the motor vehicles traveling to and from the project site.

The analysis of daily operational emissions has been prepared utilizing the URBEMIS 2001 computer model recommended by the SCAQMD. The results of these calculations are presented in Table 3.2-3. As shown, the daily operational emissions associated with the proposed project would not exceed SCAQMD thresholds. Therefore, this impact would be less than significant.

Table 3.2-3 Project Daily Operational Emissions

Emissions Source	Emissions in Pounds per Day				
	CO	VOC	NOx	SOx	PM_{10}
Water and Space Heating	0.09	0.09	0.21	–	0.0
Landscape Maintenance	0.13	0.01	0.0	0.0	0.0
Consumer Products	—	0.83	—	—	—
Motor Vehicles	20.79	1.97	1.28	0.01	1.20
Total Emissions	21.01	2.9	1.49	0.01	1.20
Thresholds (lb/day)	550.0	55.0	55.0	150.0	150.0
Significant Impact	No	No	No	No	No

Source: EIP Associates, 2002. Computer sheets are provided in Appendix C.

Local Air Quality

As was done to assess existing localized CO concentrations, the simplified CALINE4 screening procedure was used to predict future CO concentrations at the study-area intersection in 2007, when all cumulative development in the project area is expected to be completed. The results of these calculations are presented in Table 3.2-4. As shown, future CO concentrations near this intersection would not exceed federal or State ambient air quality standards. Reductions from existing conditions are attributable to improvements in automotive emission technology assumed for newer and future vehicles. Therefore, CO hotspots are not predicted to exist near this intersection in the future, and the contribution of project traffic-related CO at this intersection would not be considered significant.

Table 3.2-4 Future Cumulative Localized Carbon Monoxide Concentrations

Intersection	CO Concentrations in Parts per Million					
	25 feet		50 Feet		100 Feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Chevy Chase Dr. & Figueroa St.	9.2	5.9	9.2	5.8	9.1	5.8

Federal 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.
Federal 8-hour standard is 9.5 parts per million. State 8-hour standard is 9.1 parts per million.

Source: EIP Associates, 2002. Calculation sheets are provided in Appendix C.

AQMP Consistency

The 1997 AQMP, discussed previously, was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects,

uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the RCPG are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

The proposed project site is located within the Arroyo Verdugo subregion of the RCPG. SCAG estimates that the population within the Arroyo Verdugo subregion will increase from 427,251persons in 2005 to 438,659persons by 2010. The project would contribute an incremental portion to this growth in population. The project is consistent with all adopted land use designations for the site and would not increase the local population within the City of La Cañada Flintridge, as well as the Arroyo Verdugo subregion, beyond that which is already projected. Therefore, the proposed project would be consistent with the AQMP employment forecasts for the Arroyo Verdugo subregion, and it would not jeopardize attainment of federal and State ambient air quality standards.

Release of Toxic Air Contaminants

Toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed land uses within the project site. During construction, incidental amounts of toxic substances, such as oils, solvents, and paints, would be used. These substances would comply with all applicable SCAQMD rules for their manufacture and use. When completed and operational, only common forms of hazardous or toxic substances typically used, stored, or sold in conjunction with residential uses would be present in small quantities. Most uses of such substances would occur indoors. Based on the common uses expected on the site and anticipated construction operations, potential impacts associated with the release of toxic air contaminants would be less than significant.

Potentially Significant Impacts

Impact AQ-1 **Site preparation and construction activities would contribute substantially to an existing air quality violation. This is considered a *potentially significant* impact.**

Construction activities are expected to occur in several phases, with the infrastructure, which includes roads and utilities, being constructed first over a period of up to 36 months. Housing will be constructed in groups of three, with the start of each group of three homes scheduled post-installation of drywall of the preceding three homes. Two basic types of activities would be expected to occur and generate emissions during construction. First, the development sites would be prepared (graded) to accommodate the new residential building pads and installation of roadways and utilities. Then, the residential units would be constructed and readied for use.

Because of the construction timeframe, overlapping of building phases, and the normal, day-to-day variability in construction activities, it is difficult, if not impossible, to precisely quantify the daily emissions associated with each phase of the proposed construction activities. Nonetheless, Table 3.2-5 identifies daily emissions associated with

typical equipment for the different construction phases envisioned for the project. These calculations also assume that appropriate dust control measures would be implemented during each phase of development as required by SCAQMD Rule 403—Fugitive Dust.

As shown, construction-related grading activities would generate daily emissions of NOx that exceed SCAQMD significance thresholds. Therefore, this impact would be significant.

Table 3.2-5 Estimated Daily Construction Emissions

Emissions Source	*Peak Day Emissions in Pounds per Day*				
	CO	*VOC*	*NOx*	*SOx*	*PM_{10}*
SITE GRADING PHASE					
Construction Equipment	35.6	7.7	113.7	13.5	11.3
On-Road Vehicles	2.2	0.7	1.8	0.0	0.2
Site Grading	—	—	—	—	64.0
Total Emissions	***37.8***	***8.4***	***115.4***	***13.5***	***75.4***
SCAQMD Thresholds	550.0	75.0	100.0	150.0	150.0
Significant Impacts?	No	No	Yes	No	No
CONSTRUCTION PHASE					
Construction Equipment	45.7	9.3	81.5	6.4	10.7
On-Road Vehicles	5.3	1.4	5.3	0.0	0.3
Stationary Equipment	—	0.7	0.5	—	0.0
Asphalt Paving	—	0.7	—	—	—
Architectural Coatings	—	46.3	—	—	—
Total Emissions	***51.0***	***58.2***	***87.3***	***6.4***	***11.0***
SCAQMD Thresholds	550.0	75.0	100.0	150.0	150.0
Significant Impact?	No	No	No	No	No

Source: EIP Associates, 2002. Calculation sheets are provided in Appendix C.

3.2.5 Mitigation Measures and Residual Impacts

The following mitigation measures would be required to address potentially significant construction-related air quality impacts.

MM AQ-1.1 The project builder(s) shall develop and implement a construction management plan, as approved by the City of La Cañada Flintridge, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the City of La Cañada Flintridge:

- Configure construction parking to minimize traffic interference
- Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person)
- Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable

- Consolidate truck deliveries when possible
- Maintain equipment and vehicle engines in good condition and in proper tune, as per manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions
- Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel to the extent available and at competitive prices
- Use propane- or butane-powered on-site mobile equipment instead of gasoline to the extent available and at competitive prices

MM AQ-1.2 The project builder(s) shall implement all rules and regulations by the Governing Board of the SCAQMD that are applicable to the development of the Project (such as Rule 402—Nuisance and Rule 403—Fugitive Dust) and that are in effect at the time of development. The following measures are currently recommended to implement Rule 403—Fugitive Dust. These measures have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation:

- Water trucks will be utilized on the site and shall be available to be used throughout the day during site grading and excavation to keep the soil damp enough to prevent dust from being raised by the operations
- Wet down the areas that are to be graded or that are being graded and/or excavated, in the late morning and after work is completed for the day
- All unpaved parking or staging areas, or unpaved road surfaces shall be watered three times daily or have chemical soil stabilizers applied according to manufacturers' specifications
- Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, and dirt) according to manufacturers' specifications
- The construction disturbance area shall be kept as small as possible
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered or have water applied to the exposed surface prior to leaving the site to prevent dust from impacting the surrounding areas
- Wheel washers shall be installed where vehicles enter and exit unpaved roads onto paved roads and used to wash off trucks and any equipment leaving the site each trip
- Streets adjacent to the project site shall be swept at the end of the day if visible soil material is carried over to adjacent roads
- Wind barriers shall be installed along the perimeter of the site
- All excavating and grading operations shall be suspended when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period
- A traffic speed limit of 15 miles per hour shall be posted and enforced for the unpaved construction roads (if any) on the project site
- Remediation operations, if required, shall be performed in stages concentrating in single areas at a time to minimize the impact of fugitive dust on the surrounding area

3.2.6 Cumulative Impacts

The SCAQMD's *CEQA Air Quality Handbook* identifies possible methods to determine the cumulative significance of land use projects. These methods differ from the methodology used in other cumulative impact analyses in which all-foreseeable future development within a given service boundary or geographical area is predicted and its impacts measured. The SCAQMD has not identified thresholds to which the total emissions of all cumulative development can be compared. Instead, the SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain the federal and State air quality standards, as predicted in the AQMP.

As discussed previously, the 1997 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the Basin, meet federal and State air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. According to the *CEQA Air Quality Handbook*, projects that are consistent with the AQMP performance standards and emission reduction targets should be considered cumulatively less than significant, unless there is other pertinent information to the contrary.

The SCAQMD's *CEQA Air Quality Handbook* identifies the following three methods that could be used to analyze the cumulative impacts of a proposed project. Only the method that is applicable (if any) to the proposed project should be analyzed:

- Reduce the rate of growth in vehicle miles traveled (VMT and trips)
- One percent reduction in project emissions
- 1.5 average vehicle ridership (AVR), or average vehicle occupancy (AVO) if a transportation project

However, staff at SCAQMD permits an alternative method of evaluation of the cumulative air quality impacts of a proposed project that is applicable to the proposed project. SCAQMD staff provides that a development project shall not be considered cumulatively considerable for air quality if the development project: (i) does not generate significant air quality impacts on its own, (ii) does not propose any greater number of unity or building space than what is allowed under the existing general plan for the site, (iii) is consistent with AQMP forecasts, and (iv) does not have other projects proposed in close proximity whereby the two projects act as one larger project that would generate emissions that exceed SCAQMD thresholds. As discussed in the EIR section, the daily emissions would be substantially below the SCAQMD's recommended thresholds of significance, the project is consistent with all adopted land use designations for the site, and the project is consistent with AQMP population forecasts. There are no other projects proposed in the vicinity of the project site. Therefore, the emissions generated by the proposed project would not be cumulatively considerable.

Significant Unavoidable Impacts

No significant unavoidable air quality impacts would occur with the proposed project.

3.2.7 References

La Cañada Flintridge, City of. 1995. *Comprehensive General Plan*. Adopted May 1995.

South Coast Air Quality Management District (SCAQMD). 1993. *CEQA Air Quality Handbook*.

South Coast Air Quality Management District (SCAQMD). 1997. *1997 Air Quality Management Plan*.

Smith, Steve, Ph.D. 2003. Personal communication with CEQA Program Supervisor, South Coast Air Quality Management District, 6 March.

3.3 BIOLOGICAL RESOURCES

This section has been prepared using information from EIP field surveys, two exiting Biological Resource Assessments (VHBC, Inc., 2001; and Sapphos Environmental, Inc., 2002), a Jurisdictional/ Wetlands Delineation (EIP Associates 2002), and other published federal, State, and local documents. This section discusses the biological resources that occur on the proposed project site, details the regulatory framework associated with biological resources, evaluates potential project impacts on these resources, and provides mitigation measures to avoid or reduce those impacts, when possible.

3.3.1 Environmental Setting

Regional Setting

The project site is contained within the United States Geological Society (USGS) 7.5-minute series topographic map for Pasadena and is located within Township 1 and Range 12 West. The project site is located in the City of La Cañada Flintridge, 11 miles north of downtown Los Angeles, in the County of Los Angeles.

Site Characteristics

The proposed project involves the placement of building pads and associated access roads and infrastructure within an approximately 47.11-acre parcel. The project site is located on the eastern slopes of the San Rafael Hills and is dominated by chamise and mixed chaparral, but also contains coastal sage scrub, southern oak/sycamore riparian woodland, coast live oak woodland, and nonnative annual/grassland. The site has significant topography and is characterized by moderate to steep sloping ridges with several open intervening canyons that range from approximately 1,330 to 1,625 feet above mean sea level (msl). A very limited area has been graded for development, but the majority of the site retains its natural topography. Figure 3.1-1 (in Section 3.1, Aesthetics) is an aerial photograph of the project site and the surrounding area that illustrates the area's topography, existing development, and surrounding land uses.

Adjacent and Existing Land Use

Large, single-family homes and patches of open areas surround the project site. Residential development surrounds the proposed development area on all sides, but Sacred Heart High School lies adjacent to the southeastern edge of the subject property. The boundary between the cities of La Cañada Flintridge, Pasadena, and Glendale lies about 0.25 mile south of the site.

Study Methodology

Literature Survey

Information on occurrences of special-status species in the vicinity of the project site was obtained from searching databases and lists of California Department of Fish and Game's (CDFG) Natural Diversity Data Base (CNDDB,

January 2002) and California Native Plant Society's (CNPS) Electronic Inventory (January 2002) for the U. S. Geological Survey's (USGS) 7.5-minute Pasadena, Mt. Wilson, El Monte, Los Angeles, Chilao Flat, and Condor Peak quadrangles. Information on the status of special-status plant and animal species potentially occurring within the project site was also obtained from the CDFG's Special Vascular Plants, Bryophytes, and Lichens List (January 2002), the CDFG's List of State and Federally Listed Endangered and Threatened Animals of California (January 2002), and the CDFG's list of Special Animals (January 2002). This search range encompasses a sufficient distance to accommodate for regional habitat diversity and to overcome the limitations of the CNDDB. The CNDDB is based on reports of actual occurrences and does not constitute an exhaustive inventory of every resource.

Additionally, background information on biological resources was derived from the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), the List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base (CDFG January 2002), and The Jepson Manual of Higher Plants of California (J.C. Hickman, Ed., 1993). Based upon the results of the literature review and record searches, a list of special-status plant and animal species and habitats with the potential to occur within the project site was developed for verification in the field (refer to Table 1 [Special Status Plant Species Known to Occur in the Region of La Cañada Flintridge] and Table 2 [Special Status Wildlife Species Known to Occur in the Region of La Cañada Flintridge] in Appendix D).

Field Surveys

Plant Surveys

EIP botanist Joshua Boldt conducted a general botanical survey on December 17, 2002, to verify the previous assessment of botanical resources within the site (VHBC Inc. 2001; and Sapphos 2002). The survey included an assessment of vegetation types and plant communities occurring within the project site, as well as a general search for wetland indicator plant species along the drainages within the project site. Plant species were identified in the field or collected for future identification. Plants were identified using keys in Hickman (1993), Munz (1974), and Abrams (1923). Taxonomy follows Hickman (1993) for scientific and common names. Vegetation characterized by the preexisting surveys and verified by EIP Botanists were mapped to identify, quantify, and illustrate habitats capable of supporting special status plant species on the site.

The plant survey performed by Sapphos Environmental, Inc. was conducted at a time of year when any potentially sensitive species are normally both evident and identifiable. No listed or sensitive plants were observed as a result of directed surveys on the project site or the surrounding area; however, it is important to note that germination of annuals was low due to reduced rainfall in winter 2001/02. Blooming periods were taken from the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California (information dated 2001). All of the annual species and most of the perennial species included on the list would be expected to be in bloom during the May 14 survey.

Wildlife Surveys

EIP biologist John Spranza conducted general wildlife surveys on December 17, 2002, to verify existing wildlife survey data (Sapphos 2002; VHBC, Inc., 2001). Surveys were carried out from 8:00 A.M. until 3:00 P.M., when opportunities for detecting wildlife species are greatest. Although surveys would normally include active searches for reptiles and amphibians that involve lifting, overturning, and carefully replacing rocks and debris and observing reptile activity on dirt roads and in drainage bottoms, the time of year was inappropriate for making these observations. As such, reptilian data was taken from earlier surveys of the property. Birds were identified by standard visual and auditory recognition, and the presence of nests or other evidence of breeding activity was noted. Directed surveys for coastal California gnatcatcher were conducted in accordance with the coastal California gnatcatcher survey protocol. David Bise (USFWS PRT TE-053777-0), a biologist holding the required permits from the USFWS to conduct directed surveys for coastal California gnatcatcher, conducted the surveys. A series of six replicate directed surveys for coastal California gnatcatcher were conducted by Sapphos Environmental, Inc. on May 16, 23, and 30 and June 10, 16, and 24, 2002. Surveys for mammals included searching for and identifying diagnostic signs, including scat, footprints, scratch-outs, dusting bowls, burrows, and trails. Wildlife species observed on the project from all surveys are detailed in Table 3.3-1, Wildlife Species Observed on the La Cañada Flintridge Site.

Table 3.3-1 Wildlife Species Observed On the La Cañada Flintridge Site

Scientific Name	*Common Name*
LEPIDOPTERA	
Lycaenidae	
Leptotes marina	Marine blue
REPTILES	
Viperiadae	
Crotalus viridis	Western diamondback rattlesnake
Iguanidae	
Sceloporus occidentalis	Western fence lizard
Uta stansburiana	Side-blotched lizard
Teiidae	
Cnemidophorus tigris multiscutatus	Coastal western whiptail*
BIRDS	
Accipitridae	
Buteo jamaicensis	Red-tailed hawk
Circus cyaneus	Northern harrier
Aegithalidae	
Psaltriparus minimus	Common bushtit
Cardinalidae	
Pheucticus melanocephalus	Black-headed grosbeak
Paridae	
Baeolophus inornatus	Oak titmouse
Carthartidae	
Cathartes aura	Turkey vulture

Table 3.3-1 Wildlife Species Observed On the La Cañada Flintridge Site

Scientific Name	*Common Name*
Columbidae	
Zenaida macroura	Mourning dove
Trochilidae	
Calypte anna	Anna's hummingbird
Calypte costae	Costa's hummingbird
Picidae	
Colaptes auratus	Northern flicker
Picoides nuttalli	Nuttall's woodpecker
Hirundinidae	
Hirundo rustica	Barn swallow
Stelgidopteryx serripennis	Northern rough-winged swallow
Corvidae	
Aphelocoma californicas	Western scrub jay
Aphelocoma coerulescens	Scrub jay
Corvus corvax	Common raven
Corvus brachyrhynchos	American crow
Mimidae	
Mimus polyglottos	Northern mockingbird
Toxostoma redivivum	California thrasher
Emberizidae	
Pipilo crissalis	California towhee
Pipilo erythropthalmus	spotted towhee
Fringillidae	
Carduelis psaltria	Lesser goldfinch
Carpodacus mexicanus	House finch
Ploceidae	
Passer domesticus	House sparrow
Apodidae	
Aeronautes saxatilis	White-throated swift
Odontophoridae	
Callipepla californica	California quail
Ptilogonatidae	
Phainopepla nitens	Phainopepla
Sturnidae	
Sturnus vulgaris	European starling
Tyrannidae	
Myiarchus cinerascens	Ash-throated flycatcher
Tialiidae	
Chanaea fasciata	Wrentit
Troglodytidae	
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	House wren
MAMMALS	
Cervidae	
Odocoileus hemionus	Mule deer

Table 3.3-1 Wildlife Species Observed On the La Cañada Flintridge Site

Scientific Name	*Common Name*
Canidae	
Canis latrans	Coyote
Leporidea	
Sylviagus audubonii	Audubon's cottentail
Lepus californicus bennettii	Black-tailed jackrabbit*
Sciuridae	
Spermophilus beecheyi	California ground squirrel
Geomyidae	
Thomomys bottae	Botta's pocket gopher
Mustelidae	
Mephitis mephitis	Striped skunk
Muridae	
Neotoma sp.	Woodrat**

* Indicates a State Species of Special Concern.

** Identified from woodrat house—species may be either *Neotoma lepida* , *N. cinerea*, or *N. lepida intermedia*.

1. Taxonomy and nomenclature follows American Ornithologists' Union (1983) and supplements for birds and Laundenslayer *et al.* (1991) for amphibians, reptiles, and mammals.
2. This is not intended to be an exhaustive list of all bird species that may occur at one time or another on the project site during their migration.

Source: EIP field survey performed December 17, 2002; VHBC, Inc., Biological Assessment, Parker and Johnson Property La Cañada Flintridge, September 2001; and Sapphos Environmental, Inc., memorandum for *The Record*, August 5, 2002.

On-Site Biological Resources

Vegetation Communities

A total of 60 plant species were observed within the project site. The common and scientific names of these species are contained in Table 3.3-2 (Native Plant Species Observed within the La Cañada Flintridge Project Site) and Table 3.3-3 (Nonnative Plant Species Observed within the La Cañada Flintridge Project Site). One special-status plant species and three rare vegetation communities were observed within the project site. The 47.11-acre Study Area supports a total of eight vegetation communities or habitat types (Figure 3.3-1, Vegetation Communities). Five communities dominate the Study Area, including Mixed Chaparral (22.79 acres), Scrub Oak Chaparral (5.67 acres), Chamise Chaparral (3.07 acres), Coastal Sage Scrub (4.71 acres), and Oak/Sycamore Riparian Woodland (5.17 acres). Additional habitat types found in the Study Area include Coast Live Oak Woodland (1.29 acres), Disturbed (previously chaparral or sage scrub) (3.95 acres), and Ornamental (0.48 acre).

Table 3.3-2 Native Plant Species Observed within the La Cañada Flintridge Project Site

Scientific Name	*Common Name*
PTERIDOPHYTA	
Dennstaedtiaceae	**Bracken Family**
Pteridium aquilinum var. *pubescens*	Western Bracken Fern
ANGIOSPERMAE: DICOTYLEDONAE	**DICOT FLOWERING PLANTS**
Anacardiaceae	**Sumac Family**
Malosma laurina	Laurel Sumac
Rhus interifolia	Lemonadeberry
Rhus ovata	Sugar bush
Toxicodendron diversilobum	Western Poison Oak
Asteraceae	**Sunflower Family**
Ambrosia psilostachya	Western ragweed
Artemisia californica	California sagebrush
Baccharis pilularis	Coyote Brush
Baccharis salicifolia	Mulefat
Chrysothamnus nauseosus	Rabbit brush
Conyza Canadensis	Horseweed
Encelia californica	California brittlebush
Eriophyllum confertiflorum var. *confertiflorum*	Golden yarrow
Ericameria pinifolia	Pinebush
Hazardia squarrosa	Saw-toothed goldenbush
Helianthus annuus	Sunflower
Hemizonia fasciculata	Tarweed
Heterotheca grandiflora	Telegraph weed
Lessingia filaginfolia	Cudweed aster
Lepidospartum squamatum	Scale-broom
Stephanomeria spinosa	Wire lettuce
Cactaceae	**Cactus Family**
Opuntia basilaris	Beavertail cactus
Caprifoliaceae	**Honeysuckle Family**
Lonicera subspicata var. *denudata*	Southern honeysuckle
Sambucus mexicana	Mexican elderberry
Cucurbitaceae	**Gourd Family**
Cucurbita foetidissima	Calabazilla
Marah macrocarpus	Wild cucumber
Cuscutaceae	**Dodder Family**
Cuscuta californica	California witch's hair
Euphorbiaceae	**Spurge Family**
Chamaesyce albomarginata	Rattlesnake weed
Fabaceae	**Pea Family**
Lotus scoparius	Deer weed
Fagaceae	**Oak Family**
Quercus agrifolia	Coast live oak
Quercus berberidifolia	Scrub oak

Table 3.3-2 Native Plant Species Observed within the La Cañada Flintridge Project Site

Scientific Name	*Common Name*
Grossulariaceae	**Gooseberry Family**
Ribes aureum	Golden currant
Ribes malvaceum	Chaparral currant
Ribes speciosum	Fuchsia-flowered gooseberry
Hydrophyllaceae	**Waterleaf Family**
Eriodictyon crassifolium	Thick-leaved yerba santa
Lamiaceae	**Mint Family**
Salvia apiana	White sage
Salvia columbariae	Chia sage
Salvia leucophylla	Purple sage
Salvia mellifera	Black sage
Tricostemma lanatum	Woolly blue curls
Malvaceae	**Mallow Family**
Sidalcea neomexicana	Checkerbloom
Platanaceae	**Sycamore Family**
Platanus racemosa	Western sycamore
Polygonaceae	**Buckwheat Family**
Eriogonum fasciculatum	California buckwheat
Chorizanthe parryi var. *parryi*	Parry's spineflower*
Ranunculaceae	**Buckthorn Family**
Delphinium cardinale	Hoaryleaf ceanothus
Ceanothus cuneatus	Buckbrush
Ceanothus leucodermis	Whitebark ceanothus
Rhamnus californica	California coffeeberry
Rhamnus ilicifolia	Holly-leaved redberry
Rosaceae	**Rose Family**
Adenostoma fasciculatum	Chamise
Cercocarpus betuloides var. *betuloides*	Birch-leaf mountain mahogany
Heteromeles arbutifolia	Toyon
Solanaceae	**Nightshade Family**
Datura wrightii	Jimson weed
GYMNOSPERMAE	**GYMNOSPERMS**
Cupressaceae	**Cypress Family**
Calocedrus decurrens	Incense Cedar
Pinaceae	**Pine Family**
Pinus sp.	Pine
ANGIOSPERMAE: MONOCOTYLEDONAE	**MONOCOT FLOWERING PLANTS**
Liliaceae	**Lily Family**
Yucca whipplei	Our lord's candle
Poaceae	**Grass Family**
Leymus condensatus	Short-seeded ryegrass
Vulpia octoflora	Eight-flowered foxtail

* Special status species

Source: EIP field survey performed December 17, 2002; VHBC, Inc., Biological Assessment, Parker and Johnson Property La Cañada Flintridge, September 2001; Sapphos Environmental, Inc., memorandum for *The Record*, August 5, 2002.

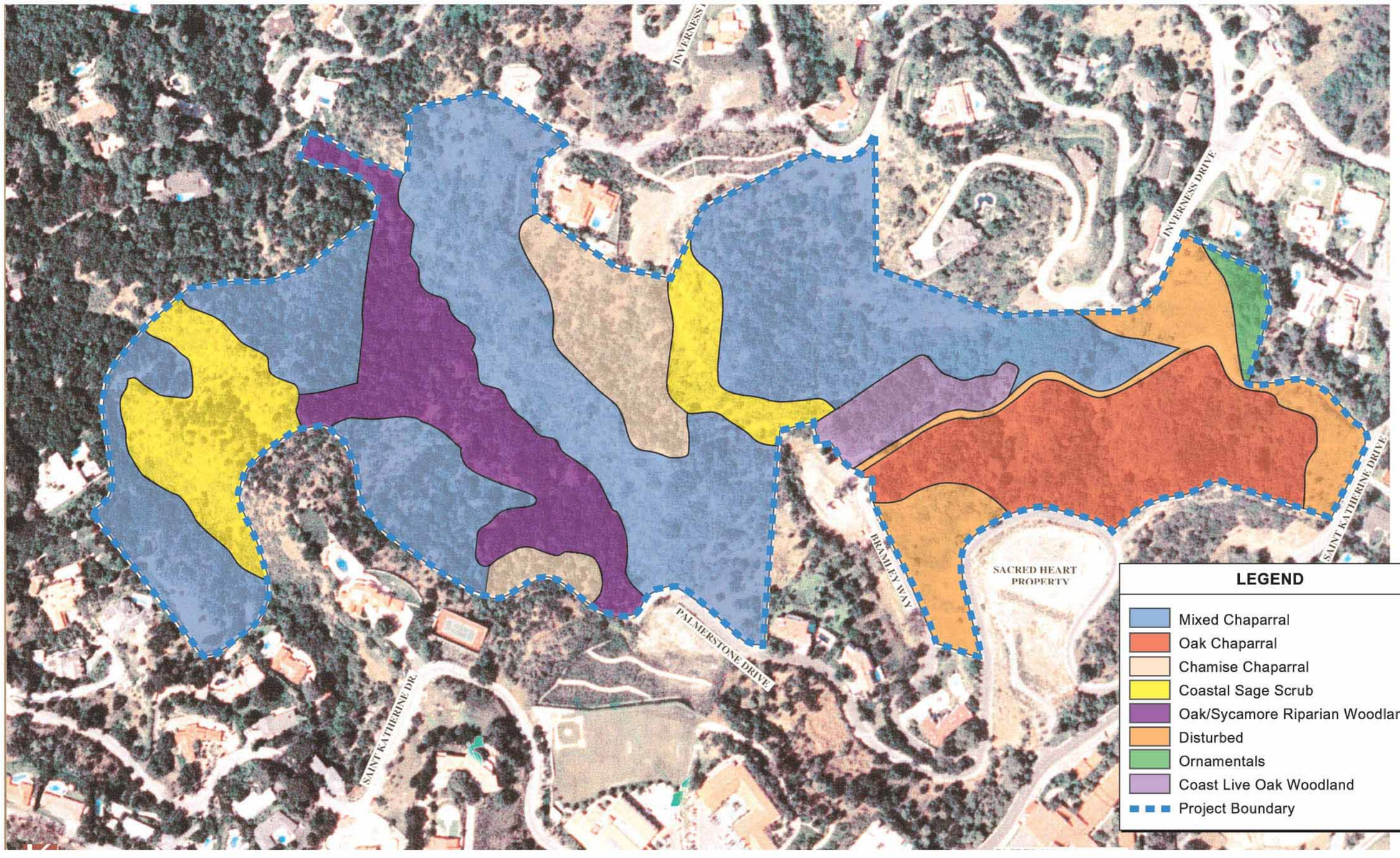
Table 3.3-3 Nonnative Plant Species Observed within the La Cañada Flintridge Project Site

Scientific Name	*Common Name*
ANGIOSPERMAE: DICOTYLEDONAE	**DICOT FLOWERING PLANTS**
Amaranthaceae	**Amaranthus Family**
Amaranthus albus	Tumbleweed
Asteraceae	**Sunflower Family**
Centaurea melitensis	Tacalote
Brassicaceae	**Mustard Family**
Brassica geniculata	Black mustard
Sisymbrium irio	London rocket
Raphanus sativus	Wild radish
Chenopodiaceae	**Saltbush Family**
Chenopodium album	Lambs quarters
Salsola tragus	Russian thistle
Convolvulaceae	**Morning Glory Family**
Convolvulus arevnsis	Bindweed
Geraniaceae	**Geranium Family**
Erodium cicutarium	Storksbill
Lamiaceae	**Mint Family**
Marrubium vulgare	Horehound
Malvaceae	**Mallow Family**
Malva parviflora	Cheesewood
Solanaceae	**Nightshade Family**
Nicotiana glauca	Tree tobacco
ANGIOSPERMAE: MONOCOTYLEDONAE	**MONOCOT FLOWERING PLANTS**
Poaceae	**Grass Family**
Avena barbata	Slender wild oats
Bromus diandrus	Ripgut brome
Bromus madritensis ssp. *Rubens*	Foxtail chess/cress
Vulpia myuros	Rattail fescue

Source: EIP field survey performed December 17, 2002; VHBC, Inc., Biological Assessment, Parker and Johnson Property, La Cañada Flintridge, September 2001; Sapphos Environmental, Inc., memorandum for *The Record*, August 5, 2002.

Chamise Chaparral (3.07 Acres)

Chamise chaparral is a 1- to 3-meter-tall, often nearly impenetrable vegetation community that is dominated by chamise (*Adenostoma fasciculatum*) with other shrub species scattered throughout. Other species that occur in this community include elements of the coastal sage scrub community, such as black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemesia californica*), deerweed (*Lotus scoparius*), and thickleaf yerbasanta (*Eriodictyon crassifolium*). Buck brush (*Ceanothus cuneatus*), our lord's candle (Yucca whipplei), and scrub oak (*Quercus dumosa*) are also found within this community. These associated species are sparsely distributed and contribute little to the overall canopy of the community. Additionally, due to the density of cover, this community generally has very little herbaceous understory. This vegetation community is typically



Scale - 1"= 240' ft.

NORTH

10734-00

EIP ASSOCIATES

SOURCE: EIP Associates

FIGURE **3.3-1**

Vegetation Communities

La Cañada Flintridge Tentative Tract Map 53647 and Variance 02-10 EIR

associated with dry, rocky (often steep) slopes with little soil. Chamise chaparral frequently occurs adjacent to oak woodlands, although the underlying soils are much rockier. This community has adapted to repeated fires from which it recovers by stump sprouting.

Mixed Chaparral (22.79 Acres)

Mixed chaparral is a structurally homogenous brushland type dominated by shrubs with thick, stiff evergreen leaves. These shrubs form a dense, often nearly impenetrable vegetation community with a canopy ranging from 1 to 4 meters tall. Mixed chaparral in the project site is dominated by a combination of Ceanothus species (*Ceanothus* spp.), chamise, black sage, California sagebrush, and California buckwheat. Associated species include toyon (*Heteromeles arbutifoia*), chaparral currant (*Ribes malvaceum*), coyote brush (*Baccharis pilularis*), big-berry manzanita (*Arctostaphylos glauca*) and other manzanitas (*Arctostaphylos* spp.), mountain mahogany (*Cercocarpus betuloides* var. *betuloides*), blue elderberry (*Sambucus mexicana*), thickleaf yerbasanta, deerweed, and scrub oak. Occasional live oaks (*Quercus agrifolia*) are scattered throughout this habitat type. The herbaceous understory consists of annual grasses (*Bromus diandrus, Bromus madritensis, Bromus tectorum, Avena fatua, Hordeum jubatum*), bunchgrasses (*Festuca* sp.) and herbs, such as black mustard (*Brassica nigra*), and composites. Infrequent occurrences of prickly-pear (*Optunia* sp.) are found scattered throughout this habitat type.

Scrub Oak Chaparral (5.67 Acres)

This community is found throughout the western Sierra foothills and North Coast ranges from Tehama County south through the southern California mountains to Baja California. This community is somewhat more mesic than many chaparrals and often occurs at slightly higher elevations (to 5,000 feet). The more favorable sites recover from fire more quickly than other chaparrals, and substantial leaf litter accumulates. The vegetation is characterized by a dense, evergreen chaparral up to 20 feet tall dominated by scrub oaks *Quercus berberidifoli*a with considerable birch-leaf mountain mahogany (*Cercocarpus betuloides)*.

Coastal Sage Scrub (4.71 Acres)

Coastal sage scrub is found primarily along the southern-facing slopes of the project site. The canopy of coastal sage scrub is much less developed than the chaparral communities. This vegetation community is composed of stands that are fairly open and are dominated by low, soft-woody subshrubs with a canopy up to 2 meters tall. The dominant species are California sagebrush, California buckwheat (*Eriogonum fasciculatum*), foxtail chess (*Bromus madritensis*), coyote brush, and black sage. Associated species include buckwheat species (*Erioginum* spp.), California broom (*Lotus scopariusi*), and our lord's candle (*Yucca whipplei*). Chaparral species (e.g., toyon, chamise, laurel sumac, and buckbrush) can be found here also. The vegetation association of scrub species, along with the project's geographic position, indicates that it is a mix of Riversidean and Venturian sage scrub communities.

Coast Live Oak/Sycamore Riparian Woodland (5.17 Acres)

Riparian woodland is made up of plants that grow near streams, lakes, or drainages. These plants require more water than scrub-adapted plants. At lower elevations the dominant trees are coast live oak, with intermixed western sycamore, California bay laurel, and willows.

Coast Live Oak Woodland (1.29 Acres)

Coastal live oak woodlands occur in the more mesic areas of coastal California from Sonoma County south into Baja California. The term "woodland" is used instead of "forest" because woodlands tend to be more open and sunlit, with their canopies sometimes touching, but rarely overlapping. Woodlands are typically found below 5,000 feet in soils too dry to support a forest. They are found within a 50-mile radius of the coast, out of the influence of salt spray. Fog is common in these areas. Soils are typically well-drained. Although certainly not limited to these areas, coastal live oak woodlands are quite common in the ravines and moister drainages between grassy hillsides.

Nonnative Ornamentals (0.48 Acre)

This plant community of predominantly nonnative grasses exists in moderately disturbed areas along road cuts and existing work areas. It can also be found in patches of native scrub and oak woodland throughout the site. Species common to these areas include red brome (*Bromus rubens*), mustard (*Brassica geniculata)*, poa (*poa annua*), London rocket (S*ysimbrium irio*), and storksbill (*Erodium cicutarium*).

Disturbed/Bare Ground (3.95 Acres)

This plant community is typically dominated by bare ground. Characteristic species include black mustard (*Brassica nigra*) and filaree (*Erodium* sp.). On the proposed project site, signs of human disturbance were noted, evidenced by trash and brushing, as well as grading of a fire road. Nonnative grasses are present, as are several oak trees, which may be remnants of an oak woodland.

Wildlife

A total of 44 wildlife species were recorded on the project site through direct observation, detection of vocalizations, or observation of sign. These species included 1 butterfly, 4 reptile, 32 avian, and 7 mammal species (see Table 3.3-1, above).

Reptiles

Reptilian diversity and abundance typically varies with vegetation type and character. Many species prefer only one or two vegetation communities; however, most will forage in a variety of habitat types. Most species occurring in open areas use rodent burrows and various objects lying on the ground for cover, protection from predators, and extreme weather conditions.

In addition to the observed species listed in Table 3.3-1, several other reptilian species could potentially occur within the site, based on habitat suitability. These include the southern alligator lizard (*Gerrhonotus multicarinatus*), striped racer (*Masticophis lateralis*), coachwhip (*Masticophis flagellum*), and gopher snake (*Pituophis melanoleucus*).

Amphibians

Amphibians require moisture for at least a portion of their life cycle, and many require standing or flowing water for reproduction. Although much of the site is dry for most of the year, a number of amphibian species occur or potentially occur in the drier habitats and within the riparian area. These species are able to survive in the dry season by remaining beneath the soil in burrows or under logs or leaf litter, emerging only when temperatures are low and humidity is high. Many of these species occur in association with water, and many emerge to breed after the rainy season begins. In addition, moisture in soil can remain high, depending on the amount of vegetation cover, elevation, slope, and aspect.

Although none were observed during the surveys, the riparian association on the site (mule fat scrub and riparian woodland) may provide suitable habitat for the western toad (*Bufo boreas*), California slender salamander (*Batrachoseps attenuatus*), arboreal Salamander (*Aneides lugubris*), and Pacific tree frog (*Hylla regilla*).

Birds

With a total of 32 two species recorded at the proposed site, birds were the most widely observed vertebrate taxon. Several of the bird species that were observed or expected to occur include the California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), house finch (*Carpodacus mexicanus*), bushtit (*Psaltriparus minimus*), wrentit *(Chamaea fasciata*), California thrasher (*Toxostoma redivivum*), California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), and black phoebe (*Sayornis nigricans*).

The site, as well as adjacent habitat, is used by raptors (birds of prey) for foraging. Although the only raptors observed within the site were the northern harrier (*Circus cyaneus)* and the red-tailed hawk (*Buteo jamaicensis*), other raptor species, like the barn owl (*Tyto alba*), Cooper's hawk (*Accipiter cooperii*), and red-shouldered hawk (*Buteo lineatus*), could potentially use the site to forage or nest at the site.

The project location has habitat that has been known to support the federally threatened coastal California gnatcatcher (*Polioptila californica californica*). As such, USFWS protocol surveys for this species were conducted during May and June 2002 by Sapphos Environmental, Inc. (David Bise, PRT TE-053777-0). No coastal California gnatcatchers were heard or observed in coastal sage scrub or any immediately adjacent habitat during directed surveys conducted. Coastal California gnatcatchers were determined to be absent as a result of directed surveys. Of the plant communities within the site, only sage scrub provides potentially suitable breeding habitat for the coastal California gnatcatcher, but there were no reported sightings. The area surveyed included the approximately 47.11-acre proposed tract and immediately adjacent areas.

Mammals

A total of eight mammalian species were observed or detected within the project site. Based on habitat suitability, the deer mouse (*Peromyscus maniculatus*), western harvest mouse (*Reithrodontomys megalotis*), and Virginia opossum (*Didelphis virginiana*), could also potentially occur within the site.

Wildlife Movement

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open-space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open-space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967, Soule 1987, Harris and Gallagher 1989, Bennett 1990). Corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, or searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing" to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion of wildlife movement in this analysis, these terms are defined as follows:

- *Travel Route*—A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and provides a relatively direct link between target habitat areas.
- *Wildlife Corridor*—A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.
- *Wildlife Crossing*—A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents

movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent "choke points" along a movement corridor.

Within a large, open-space area in which there are few or no manmade or naturally occurring physical constraints to wildlife movement, wildlife corridors, as defined above, may not yet exist. Given an open-space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others), wildlife would use these "local" routes while searching for food, water, shelter, and mates, and would not need to cross into other large open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-size animals. This is especially true if the travel route is within a larger open-space area. However, once open-space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles, such as roads and highways, the remaining landscape features or travel routes that connect the larger open-space areas can "become" corridors as long as they provide adequate space, cover, food, and water, and do not contain obstacles or distractions (e.g., manmade noise, lighting) that would generally hinder wildlife movement.

The site is not expected to function as an important regional wildlife corridor because it is bounded by development on all sides which, when combined, act as significant barriers to wildlife movement. However, the project site is expected to act as a local "travel route" and provide resident wildlife species with local movement opportunities across the property as the wildlife species travel on and off the project site in search for food, water, and mates.

Jurisdictional Areas (USACE/CDFG)

The channels that drain the site convey flows to the Arroyo Seco, which then drains into the Los Angeles River. As the Los Angeles River is under the jurisdiction of the U.S. Army Corps of Engineers (Corps), and as it is physically linked to the drainage channel within the site, the Corps could have jurisdiction over both the "blue-line" and ephemeral drainage channels within the project area.

As such, EIP conducted a Clean Water Act, Section 404, wetland/jurisdictional delineation for areas that would be subject to disturbance by the proposed project. These areas were limited to a single drainage channel that is located where Lots 2, 3, and 8 are proposed. The on-site examination of vegetation, soils, and hydrology was conducted according to the Corps' three-parameter (vegetation, soils, hydrology) method of wetland delineation. The wetland/jurisdictional delineation field evaluation was conducted by EIP in December 2002. The site evaluation included analysis of current aerial photographs, topographic maps, vegetation, and soils information. Based on this analysis, EIP found that the site has 0.067 acre of nonwetland waters potentially subject to the jurisdiction of the Corps (548 feet of ephemeral channel), and 1.29 acres that is potentially under CDFG jurisdiction (0.067 acre of ephemeral streambed, 0.043 acre of riparian vegetation, and 1.18 acres of oak woodland).

Of these, the project proposes to fill in the ephemeral drainage, which would impact 0.067 acre of ephemeral drainage (548 linear feet) channel potentially subject to Corps jurisdiction. Additionally, 1.25 acres of riparian vegetation and channel potentially subject to CDFG jurisdiction would be impacted (1.18 acres of oak woodland and 0.067 acre of ephemeral channel).

Special Status Biological Resources

The following section addresses special-status biological resources observed, reported, or having the potential to occur on the site. These resources include plant and wildlife species that have been afforded special status and/or recognition by federal and State resource agencies, as well as private conservation organizations. In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Appendix D lists special status plants and animals known to occur within the region of the project, along with their federal and State listing and potential for occurrence on the site. In addition, special-status biological resources include vegetation types and habitats that are unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, State, and local government conservation programs.

In addition to the other sources listed in this section, the following sources were used to determine the special status of biological resources:

- *Plants*—CNPS 2002. Electronic Inventory of Rare and Endangered Vascular Plants of California. California Native Plant Society, Sacramento, California. California Natural Diversity Data Base (CNDDB), 2003. Various Federal Register notices from the USFWS regarding listing status of plant species.
- *Wildlife*—California Natural Diversity Data Base (CNDDB), 20003. Federal Register notices from the USFWS regarding listing status of wildlife species.
- *Habitats*—California Natural Diversity Data Base (CNDDB), 2003.

Vegetation

Plants

No listed or sensitive plants were observed as a result of directed surveys (Sapphos 2002) on the project site or the surrounding area; however, it is important to note that germination of annuals was low due to reduced rainfall. Potentially suitable habitat was observed for the following listed species: Nevin's barberry, Braunton's milk-vetch, and slender-horned spineflower. Information about these species was obtained primarily from the CNDDB, Hickman's *The Jepson Manual: Higher Plants of California*, Munz's *A Flora of Southern California*, and the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California.

Three Parry's spine flowers (Federal Species of Concern) were observed adjacent to the site near Monarch Drive dirt access road, and one dried and damaged *Malacothamnus* species was observed at the terminus of Palmerstone Drive pavement ends and the dirt section begins, adjacent to Lot 9 (VHBC, 2001). The *Malacothamnus* could not

be identified to the species level due to the poor condition of the sample. Suitable habitat was also observed for the following sensitive species: Robinson's pepper-grass, Davidson's bush mallow, Brand's phacelia, southern skullcap, San Gabriel bedstraw, and Plummer's mariposa lily.

Habitats

Three habitat special assemblages were found within the project area. Coastal sage scrub (4.63 acres), oak/sycamore riparian woodland (approx 5.12 acres), and coast live oak woodland (1.29 acres) are considered by the CDFG to be sensitive habitat due to the rapid loss of these habitat types.

Other

Special-status species also include species considered to be sensitive by local municipalities, agencies, or organizations. Although native oak and western sycamore are not a State- or federally listed species, any oak or sycamore tree greater than 12 inches in diameter (measured 4 feet above grade) are considered to be a sensitive species by City of La Cañada Flintridge and are "Protected Native Trees" under La Cañada Flintridge's Tree Protection Ordinance (NO. 322). A tree survey performed by L. Newman Design Group (2002) found 40 trees that would fall under the protection of this ordinance.

Wildlife

Eleven of the 40 special status wildlife species known to occur in the region have at least a moderate potential to occur on the site or use it for foraging. Of these, none are listed as a federal- or State-endangered or threatened species. The presence of any species listed as endangered or threatened by the State or federal resource agencies could result in significant impacts to these resources by any proposed development activities on the site. Special-status wildlife species observed within the project boundary include the coastal western whiptail (*Cnemidophorus tigris multiscutatus*), a State species of concern; and the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), a State and Federal Species of Concern. Several wood rat houses were observed on the site, which could be the houses of *Neotoma lepida intermedia*, a California Species of Concern. All special-status wildlife species known to occur in the region are detailed in Appendix A. Detailed information on special-status wildlife species observed at the site is given below.

Coastal Western Whiptail

Coastal western whiptail, a Federal Special Concern Species, occurs in a wide range of desert and semi-arid habitats where vegetation is sparse and there are large, open areas for running. Vegetation communities typically associated with this species include sparse grasslands, desert scrub habitats, chaparral, oak savannas, and the drier parts of oak woodlands and pine forests. Coastal western whiptail generally avoid dense grasslands. Range maps for coastal western whiptail indicate that this species may occur in the vicinity of the project site. Threats to this species are primarily the result of habitat loss due to conversion to agriculture or urban development.

San Diego Desert Woodrat

Woodrats have a rat-like appearance, with long tails, large ears, and large black eyes. The San Diego Desert Woodrat (*Neotoma lepida intermedia*) is the smallest of the three California Woodrat species, with a total length of approximately 282 to 305 mm (11.3 to 12.2 inches). It is a pale gray with light undersides, but the fur on the throat region is gray at its base; the tail is distinctly bicolored. The San Diego Desert Woodrat occurs in the southern half of California and the entire Baja California peninsula.

San Diego Black-Tailed Jackrabbit

The San Diego black –tailed jackrabbit occupies most areas that support annual grassland, Riversidean sage scrub, Great Basin sagebrush, chaparral, and agricultural. This species typically does not burrow, but takes shelter at the base of shrubs in shallow depressions.

3.3.2 Regulatory Framework

Federal Regulations

Section 404 of the Clean Water Act

Section 404 of the Clean Water Act requires that a permit be obtained from the U.S. Army Corps of Engineers (Corps) prior to the discharge of dredged or fill materials into any "waters of the United States," including wetlands. Waters of the United States are broadly defined in the Corps' regulations (33 CFR 328) to include navigable waterways, their tributaries, lakes, ponds, and wetlands. Wetlands are defined as "[t]hose areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Such permits often require mitigation to offset losses of these habitat types. Wetlands that are not specifically exempt from Section 404 regulations (such as drainage channels excavated on dry land) are considered to be "jurisdictional wetlands." The Corps is required to consult with the USFWS, Environmental Protection Agency (EPA), State Regional Water Quality Control Board (RWQCB), and the CDFG in carrying out its discretionary authority under Section 404. Results of a wetland and jurisdictional delineation performed by EIP were discussed above.

Section 401 of the Clean Water Act

A Section 401 Water Quality Certification, or waiver thereof, is required from the RWQCB before a Section 404 permit becomes valid. The Regional Board will review the project for consistency with Waste Discharge Requirements under the State land disposal regulations (Subchapter 15). In reviewing the project, the Regional Board will also consider impacts to waters of the United States, in addition to filling of wetlands, in accordance with the State wetland policy. Usually, mitigation is required (if not already a condition of the 404 permit) in the form of replacement or restoration of adversely impacted "waters of the U.S." A Section 401 Water Quality Certification or waiver from the California Regional Water Quality Control Board could be required for this project.

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act makes it unlawful to "take" (kill, harm, harass, etc.) any migratory bird listed in 50 CFR 10, including their nests, eggs, or products. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many other species.

Federal Endangered Species Act of 1973

Section 3 of the Federal Endangered Species Act (FESA) defines an endangered species as any species or subspecies "in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as any species or subspecies of fish, wildlife, or plants "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Threatened or endangered species and their critical habitat are designated through publication of a final rule in the Federal Register. Designated endangered and threatened animal species are fully protected from "take" unless an applicant has an incidental take permit issued by the USFWS under Section 10 or incidental take statement issued under Section 7 of the FESA. A take is defined as the killing, capturing, or harassing of a species. Proposed endangered or threatened species or their critical habitats are those for which a proposed regulation, but not final rule, has been published in the Federal Register.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA establishes that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, plant and animal species may be formally designated as rare, threatened, or endangered through official listing by the California Fish and Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

On private property, endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. Threatened plants are protected by CESA, and rare plants are protected by the NPPA. However, CESA authorizes that "[p]rivate entities may take plant species listed as endangered or threatened under the FESA and CESA through a Federal incidental take permit issued pursuant to Section 10 of the FESA, if the CDFG certifies that the incidental take statement or incidental take permit is consistent with CESA." In addition, the California Environmental Quality Act (CEQA) requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts.

California Environmental Quality Act—Treatment of Listed Plant and Animal Species

FESA and CESA protect only those species formally listed as threatened or endangered (or rare in the case of the State list). Section 15380 of the CEQA Guidelines independently defines "endangered" species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy and "rare" species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project normally will have a significant effect on the environment if it will substantially affect a rare or endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

State of California—Sections 1601, 1602, and 1603 of the California Fish and Game Code

Streambeds and other drainages that occur within the project site are subject to regulation by the CDFG. The CDFG considers most drainages to be "streambeds" unless it can be demonstrated otherwise. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel with banks and supports fish or other aquatic life. This includes watercourses having a surface or sub-surface flow that supports, or has supported, riparian vegetation. CDFG jurisdiction typically extends to the edge of the riparian canopy and, therefore, usually encompasses a larger area than Corps jurisdiction. A CDFG Streambed Alteration Agreement would likely be required for this project.

State of California—Sections 3503, 3503.5, and 3800 of the California Fish and Game Code

These sections of the Fish and Game Code prohibit the "take or possession of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." Such a take would also violate Federal law protecting migratory birds.

Incidental Take Permits (i.e., Management Agreements) are required from the CDFG for projects that may result in the incidental take of species listed by the State of California as endangered, threatened, or candidate species. The permits require that impacts to protected species be minimized to the extent possible and mitigated to a level of insignificance.

General Project Consistency

By law, the proposed project must be in conformance with all of the above regulations and guidelines. If required, discharges into Waters of the United States from, but not limited to, grading or construction, must be in conformance with Clean Water Act via 404 and 401 certification and permitting. Modifications to the stream channels must be in conformance with Section 404 of the CWA and Section 1603 of the California Fish and Game Code. Additionally, runoff produced during and after construction is subject to National Pollution Discharge Elimination System Regulations, as well as local water quality and runoff standards

City of La Cañada Flintridge Regulations

Tree Ordinance (Chapter 4.26 of the City's Municipal Code)

The tree ordinance for the City is in place to preserve to preserve and protect trees that are of historic or aesthetic importance and to provide for the protection and replacement of trees in order to maintain the community's wooded character; protect the scenic beauty of the area; reduce erosion of top soil, flood hazard, risk of landslides, and costs and maintenance of drainage systems through reduced flow and diversion of surface waters; and address fire concerns by discouraging the planting of pines, deodar cedars, and other highly flammable trees. The ordinance states:

> For single-family residential uses, no native oak, sycamore, deodar cedar, Chinese elm or California pepper tree with a trunk measuring 12 inches or more in diameter (as measured at a point four (4) feet from the ground surface at the natural grade) shall be removed without a Tree Removal Permit issued by the City. Where a tree trunk is divided below four feet above grade, the diameter of all trunks (as measured four feet from the natural grade) shall be added to determine tree diameter.

Furthermore:

> For purposes of processing under the California Environmental Quality Act (CEQA), any affected oak, deodar cedar, sycamore, Chinese elm, or California pepper tree which is 36" or greater in diameter shall be considered mature or scenic, and shall be subject to the environmental review processes related thereto.

The tree protection guidelines set the standards and specifications for the protection of these trees and offer protection measures for projects involving construction. They require the submittal of a tree protection plan for review and approval prior to any construction and/or development.

3.3.3 Thresholds of Significance

The criteria for determining significant impacts on biological resources were developed in accordance with State CEQA Guidelines. Section 15065(a) of the CEQA Guidelines states that a project may have a significant effect on the environment if "…the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species…." An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally adverse, but not significant, because they would result in an adverse alteration of existing conditions, but they would not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

Based on the Environmental Checklist Form from Appendix G of CEQA, a project may have a significant impact on biological resources if the project would

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

3.3.4 Impacts

Total impacts of the proposed project on the vegetation communities are listed in Table 3.3-4 below. Impacts included in the analysis are impacts from the actual lot footprints, grading and roadway alterations, and per Los Angeles County Fire Code, a 150-foot fuel-modification zone surrounding each pad. As a conservative estimate, this zone assumes a loss of the majority of native vegetation within these areas.

Table 3.3-4 Impacts by Category to On-Site Vegetation within the La Cañada Flintridge Project Site (Acres)

Vegetation	*Lot Footprints*	*New Grading*	*New Roads*	*150-foot Fuel Mod Zone*	*Total Impact*
Chamise Chaparral	0.062	0.21	0.0	1.55	*1.81*
Coast Live Oak Woodland	0.54	0.56	0.19	0.0	*1.29*
Coastal Sage Scrub	0.08	0.24	0.0	1.32	*1.64*
Disturbed	0.76	0.35	0.76	2.08	*3.95*
Mixed Chaparral	2.85	2.31	0.99	13.36	*19.51*
Oak Chaparral	1.07	0.5631	0.5909	3.3900	*5.61*
Oak/Sycamore Riparian Woodland	0.0	0.0	0.0	0.0	*0.00*
Ornamentals	0.047	0.0	0.0	0.42	*0.47*
Total					***34.28***

Source: EIP field survey performed December 17, 2002; and GIS Analysis

Less-Than-Significant Impacts

Chaparral and Mixed Chaparral

A total of approximately 1.81 acres of chamise chaparral, 5.61 acres of oak chaparral, and 19.51 acres of mixed chaparral would be permanently lost by project implementation. This impact would not be considered significant because of the relatively small area affected and the fact that this vegetation type is common in the project vicinity (San Gabriel Mountains, including the Angeles National Forest) and throughout the southern California region.

Although chaparral is not considered a sensitive community, the chaparral on site supports scrub oak, which is protected by the City of La Cañada Flintridge's Tree Ordinance, and the coastal western whiptail, which is a special-status species. However, impacts to these species are discussed below, and mitigation measure BIO-1 would reduce impacts to oak scrub to less-than-significant levels and BIO-5 and BIO-6 would reduce impacts to the wildlife species to less-than-significant levels.

Nonnative Annual Grassland and Ornamentals

Approximately 0.47 acre of nonnative annual grassland and/or ornamental will be lost by project implementation. These areas provide poor quality habitat due to low cover by native vegetation and increased levels of disturbance. Impacts to these areas would be considered less than significant.

Disturbed Areas

A total of 3.95 acres of disturbed vegetation will be impacted by construction of the proposed project. These impacts are less than significant because these areas are dominated by nonnative annual grasses and forbs, mostly of European origin, that are indicators of significant previous site disturbance. Furthermore, this association is common throughout southern California, and impacts would be less than significant.

Nonsensitive Wildlife

The amount of habitat for wildlife that would be affected by implementation of the proposed project is relatively small, not necessarily in relation to what remains in the immediate area, but certainly in relation to the habitat available in the Verdugo Mountains and Los Padres National Forest to the west and Angeles National Forest to the north. Although the site does not act as a wildlife corridor, individuals of many wildlife species are highly mobile and will be able to relocate from the relatively small area impact to the adjoining larger areas of vacant land to the west. Other, less mobile individuals in the impact areas will be lost during project implementation. However, the project impacts to nonsensitive wildlife species would be less than significant, as the loss of these species would not

- Cause a substantial reduction of the overall habitat of a wildlife species
- Produce a drop in a wildlife population below self-sustaining levels
- Eliminate a plant or animal community
- Cause a reduction or restriction of the number or range of a rare or endangered plant or animal

- Have a substantial affect on a rare or endangered species of animal or plant or the habitat of the species
- Substantially interference with the movement of any resident or migratory wildlife species
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other State, regional, or local conservation plan

As discussed in the previous section, due to surrounding development and Highways 134 and 210, the area does not serve as a regional wildlife corridor or as a nursery area, and the proposed project would not contribute to habitat fragmentation in this area. As such, impacts to nonsensitive wildlife species would be less than significant.

Sensitive Wildlife

Although the San Diego black-tailed jackrabbit does occupy the site, impacts to this species would be less than significant given this species ability to occupy and forage in a wide range of habitats and its ability to rapidly relocate to unimpacted areas within or adjacent to the project site.

Noise Impacts to Wildlife

Noise levels at the site will increase substantially over present levels during construction of the proposed project. During construction, temporary noise impacts have the potential to disrupt foraging, nesting, and denning activities for a variety of wildlife species. Because most species in the vicinity of the site are not listed as threatened or endangered by State or federal resource agencies, these temporary impacts are considered adverse, but not significant.

Noise impacts would also increase over present levels when the land use is converted from open space to residential and recreational uses. Therefore, habitat remaining on site adjacent to development would be considered disturbed. Wildlife stressed by noise may be extirpated from the remaining on-site natural open space, leaving only wildlife tolerant of human activity. Chronic (permanent) noise increases would be considered adverse, but not significant since it would contribute to an incremental loss of habitat but would not reduce wildlife populations below self-sustaining levels.

Increased Dust

Grading activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs. The respiratory function of the plants in the area would be impaired when dust accumulation is excessive. The indirect effect (temporary) of project construction on the native vegetation in the immediate vicinity of the construction area is considered adverse, but not significant.

Night Lighting

Lighting of the residential neighborhoods would inadvertently result in an indirect effect on the behavioral patterns of nocturnal and crepuscular (active at dawn and dusk) wildlife at these areas. Of greatest concern is the effect on small, ground-dwelling animals that use the darkness to hide from predators and on owls, which are specialized

night foragers. These permanent impacts, while adverse, would not be expected to reduce any current wildlife population below self-sustaining levels. However, Mitigation Measure 3.9 would further reduce impacts.

Human Activity

Project residents are expected to use the site's remaining natural open space for recreation. This would increase the noise and disturbance of natural open space remaining on the site, especially natural open space adjacent to development. Human disturbance could disrupt normal foraging and breeding behavior of wildlife remaining on the site, diminishing the value of on-site habitat areas. In addition, pets in these neighborhoods (i.e., cats and dogs) would become introduced predators and would increase the stresses of wildlife remaining in the open space areas on the site. These habitats would be considered disturbed as well. Therefore, permanent impacts due to human activity would be considered adverse, though not significant.

Potentially Significant Impacts

Impact BIO-1 **Implementation of the proposed project would violate La Cañada Flintridge's Tree Ordinance through the loss of listed native trees. This is considered a *potentially significant* impact.**

The La Cañada Flintridge Tree Ordinance has been established to recognize certain native trees as significant historical, aesthetic, and ecological resources. Tree surveys performed by L. Newman Design Group, Inc. identified thirty-nine (39) native oak trees (*Quercus agrifolia*) and one (1) incense cedar (*Calocedrus decurrens*) within the project area that are potentially protected by the Tree Ordinance. Implementation of the proposed project would result in the encroachment upon three (3) oaks, and the loss of twenty-nine (29) oak trees and one cedar (L. Newman Design Group, Inc. 2003). Without mitigation impacts to these 30 trees would be significant.

Construction and post-construction impacts to the protected tree species occurring on the project site should be avoided. Strict adherence to Best Management Practices (BMPs) and successful implementation of a comprehensive mitigation and monitoring plan as outlined in Mitigation Measures BIO-1.1 through BIO-1.4 would reduce potential impacts to these protected tree species to less-than-significant levels

Impact BIO-2 **The proposed project could have a substantial adverse effect on coastal sage scrub communities and riparian habitat, including riparian woodland and coast live oak woodlands, which are identified as sensitive natural communities by the CDFG. This is considered a *potentially significant* impact.**

Through either alterations due to pad and infrastructure construction, or modifications resulting from the required Fuel Modification Plan (see Section 3.6, Hazards) the project as proposed would result in the loss of 1.29 acres of riparian Oak woodland and 1.64 acres of moderate to high quality coastal sage scrub (CSS). Riparian woodlands and scrub are listed as a sensitive community by the CDFG, and coastal sage scrub is considered to be limited and/or rare by federal, State, and local resource agencies and conservation organizations. The loss of significant portions of these habitats would be a potentially significant impact without mitigation; however, current site plans and easement boundaries indicate that approximately 5.1 acres of Oak/Sycamore riparian woodland in the western-most canyon (Lot 18) would not be directly impacted and would be placed under a conservation

easement. With the preservation of 5.1 acres of this sensitive habitat; the formulation of a mitigation plan to replace any impacted sensitive communities at a minimum of 2:1 ratio as stipulated by Mitigation Measure BIO-2.1, BIO-2.2, BIO-2.3, and BIO-2.4; and the implementation of impact-avoidance techniques (BMPs), impacts to riparian woodlands, coast live oak woodlands, and coastal sage scrub communities would be less than significant with the current design.

Impact BIO-3 **Grading activities during project construction and the establishment of project landscaping could result in the introduction of undesirable invasive nonnative plant species to the project site and adjacent areas. This is considered a *potentially significant* impact.**

Soil disturbance could result in the spontaneous growth of "opportunist" or weedy species that spread aggressively into former naturalized areas. As a number of invasive exotic weeds are already present in disturbed habitats in adjacent areas, there is a high potential that seeds of these species could colonize newly disturbed sites. Certain nonnative plant species commonly used in landscaping discourage regeneration or growth of desirable native vegetation. Nonnative plant species do not provide foraging habitat that is as valuable for resident wildlife species as foraging habitat provided by native plant species. Implementation of Mitigation Measure BIO-3 would reduce this impact to a less-than-significant level.

Impact BIO-4 **Implementation of the project could, through habitat modifications, result in a potential reduction in nesting opportunities for resident and migratory avian species of special concern and raptors known to breed in the project vicinity. This is considered a *potentially significant* impact.**

As described above in Environmental Setting, no threatened or endangered species have been reported to occur within the project site; however, migratory avian species and raptors, which may use portions of the site during breeding season, are protected under the MBTA while nesting. Additionally, project implementation and construction-related activities including, but not limited to, grading, materials laydown, facilities construction, and construction vehicle traffic may result in the disturbance of nesting special-status species (e.g., Cooper's hawk) and raptors and, ultimately, in the abandonment of nests, eggs, or unfledged juveniles. The loss of a special-status species, an occupied nest, or substantial interference with roosting and foraging opportunities for migratory species of special concern or raptors, as a result of construction or demolition activities, would constitute a significant impact. However, this impact would be reduced to a less-than-significant level through the implementation of Mitigation Measures BIO-4.1 and BIO-4.2.

Impact BIO-5 **Implementation of the project may result in the loss or take of the coastal western whiptail, which is a special status species. This is considered a *potentially significant* impact.**

The coastal western whiptail, a California species of special concern, was observed at the proposed site. This species actively forages on the ground near vegetation, primarily preying on insects. Project-related activities including, but not limited to, grading, materials laydown, facilities construction, and construction vehicle traffic may result in the displacement and/or loss of individual coastal western whiptail, which would be a significant

impact. Implementation of Mitigation Measure BIO-5 would reduce impacts to the whiptail to a less-than-significant level.

Impact BIO-6 **Implementation of the project may result in the loss or take of the San Diego Desert Woodrat, which is a special status species. This is considered a *potentially significant* impact.**

The San Diego Desert Woodrat is a federal and State species of concern. Although it was not observed, a Woodrat house was detected on site and could potentially belong to this species (trapping was not performed). If the house does belong to the San Diego Desert Woodrat, project-related activities including, but not limited to, grading, materials laydown, facilities construction, and construction vehicle traffic may result in the displacement and/or loss of individual San Diego Desert Woodrats, which would be a significant impact; however, Mitigation Measure BIO-6 would reduce any potential impacts to less than significant.

Impacts BIO-7 **Implementation of the project could, through habitat modifications, result in a potential take of special status plant species. This is considered a *potentially significant* impact.**

Focused botanical surveys failed to identify any additional special status plant species on site. Although only Parry's spine flower (State sensitive) was confirmed to occur on site, the possibility of occurrence could not be ruled out for Nevin's barberry, Braunton's milk-vetch, and slender-horned spineflower, as well as the following sensitive species: Robinson's pepper-grass, Davidson's bush mallow, Brand's phacelia, and Plummer's mariposa lily. Impacts to these species are potentially significant. However, the incorporation of Mitigation Measure BIO-7 would reduce these impacts to less than significant.

Impact BIO-8 **Construction and operation of the proposed project could have direct and indirect effects upon the hydrology and aquatic habitat quality of the un-named intermittent drainage located in the central portion of the project site and its tributaries. These effects would constitute a *potentially significant* impact.**

During grading for construction of the project, Lots 2 through 7 and 10 through 13 could produce sediment-laden runoff that has the potential to increase erosion and subsequent deposition of soil particles in the drainage. This deposition would alter the physical characteristics of the drainage, potentially resulting in the loss the sensitive riparian vegetation currently found within the basin. Additionally, surface water runoff containing excess fertilizers could alter the existing riparian plant community and could cause initial overgrowth and subsequent death of any algae in the drainage. Runoff containing toxins found in the herbicides, insecticides, and fungicides that used to maintain landscaping could result in direct kill of aquatic and riparian plants and animals. Implementation of Mitigation Measures BIO-2.1 through BIO-2.4, BIO-8.1, and BIO-8.2 would reduce these impacts to a less-than-significant level.

Impact BIO-9 **Increases in nighttime illumination could disturb nighttime activities of local wildlife species and alter local species composition; this is a *potentially significant* impact.**

Nighttime illumination is known to adversely impact animals in natural areas. It can disturb or disrupt resting foraging, nesting, and breeding behavior and cycles. Project operation would increase the number of nighttime

light sources on site. If unchecked, this light, where proximal to natural areas, could adversely impact the wildlife of the area.

Any potential disruption to breeding, foraging, or resting cycles, as well as alteration the behavior of wildlife species remaining on site as a result of increased nighttime lighting and glare would be considered a significant impact. As such, implementation of Mitigation Measure BIO-9 would be required to reduce these impacts to less-than-significant levels.

Significant Unavoidable Impacts

Impact BIO-10 **The project would be incompatible with Policy 4.1 of the City's Environmental Resource Management Element, Policy 3.1 of the City's Land Use Element, and Policies B, and H of the City's Hillside Ordinance. Per CEQA Section G thresholds, these conflicts with local policies protecting biological resources would constitute a *potentially significant* impact.**

As discussed above in section 3.3.3 *Thresholds*, Appendix G of the CEQA Guidelines specifically refers the biological impacts assessment to take into account local policies or ordinances protecting biological resources. Although the project would include a conservation easement of 18.36 acres, it would still impact approximately 34.28 acres of mostly native vegetation, alter the surrounding topography, and permanently remove 1.25 acres of riparian vegetation and streambed (1.18 acres of oak woodland and 0.11 acre of ephemeral channel), and 29 oak trees, which would all be considered a significant environmental resources by the general plan. As discussed above these impacts would result in the project not being in substantial conformity with these Policies. As no mitigation is applicable to this impact, it would remain as a ***significant and unavoidable*** impact.

3.3.5 Mitigation Measures and Residual Impacts

MM BIO-1.1 The Applicant shall identify and tag all protected tree species and prior to being issued a grading permit, prepare a tree report that meets the requirements of the La Cañada Flintridge City Tree Ordinance, and specify replacement numbers and locations. The Applicant shall also include the preparation and submission of a tree protection plan. When construction activities occur near protected tree species, Best Management Practices (BMPs) to avoid damage to the trees shall be implemented and verified by the developer. The BMPs would include, but are not limited to, (1) installing protective fencing prior to and during construction, per Section 4.26.040 of the City's Tree Protection Guide; (2) avoiding disturbance and trenching within the tree drip line; (3) maintaining the surface grade around the tree; and (4) prohibiting the placement of paving or landscaping requiring summer irrigation in the vicinity of trees.

MM BIO-1.2 A drainage plan shall be designed in such a way as to avoid changes to hydrology in the vicinity of the protected trees.

MM BIO-1.3 Construction staging areas should be designated on the construction plans, and parking, loading, and grading during all construction activities are prohibited within the root zone of the protected trees.

MM BIO-1.4 The Applicant shall provide a protected tree information manual to purchasers or the homeowners' association.

MM BIO-2.1 The Applicant must notify the U.S. Army Corps of Engineers and obtain a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or U.S. Army Corps of Engineers (Corps) Section 404 Permit prior to final approval of grading and site construction plans. While the final conditions of the permits will be determined through coordination with these agencies, at a minimum the following actions shall be performed:

(A) Impacted riparian vegetation that cannot be avoided, including that which is impacted due to brush clearing requirements, shall be replaced at a minimum 2:1 ratio under a mitigation plan approved by the Corps and CDFG. Riparian trees shall be replaced at a ration stipulated by CDFG, but not less than 2:1. If replacement within the area is not feasible, then an approved mitigation bank shall be used.

(B) Revegetation shall be performed by a qualified revegetation specialist and shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for riparian habitat. First priority shall be given to areas that are adjacent to existing patches of native habitat.

(C) A riparian revegetation plan shall be prepared by a qualified revegetation specialist to include all measures for the revegetation and maintenance of on and/or offsite riparian habitat. The plan shall include the following:

(1) The details and procedures required to prepare the restoration site for planting (i.e., grading, soil preparations, soil stocking, etc.), including the need for a supplemental irrigation system, if any.

(2) The methods and procedures for the installation of the plant materials. Plant protection measures identified by this document, the project biologist, and/or agency personnel shall be incorporated into the planting design and layout.

(3) Guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of nonnative plant species, the maintenance of the irrigation system, and the replacement of plant species.

(4) The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat and/or vegetation. Specific goals for the restored habitat shall be defined by quantitative and qualitative characteristics of similar habitats and plants (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of it by wildlife. Monitoring reports of the mitigation site shall be reviewed by the permitting State and federal agency(s).

(5) Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan should the plantings fail to meet designated success criteria and planting goals.

MM BIO-2.2 The Applicant shall avoid and preserve riparian vegetation to the extent feasible. Native streamside vegetation occurring in the riparian zone shall be protected and retained to filter groundwater runoff. In addition, a buffer zone extending 50 feet from the outer extent of any riparian forest on each side of the drainage shall be established and, if necessary, enhanced by plantings of native species within the project site adjacent to the intermittent drainage. Project design would site any drainage crossings for the proposed new streets in areas where riparian trees and other riparian vegetation are least dense.

MM BIO-2.3 A conservation easement or other development restriction shall be placed over the entire 18.36 acres of Lot 18. The conservation easement or other restriction shall stipulate permitted uses within this area, as well as provide a maintenance and enhancement plan, which would list, among other maintenance and enhancement, details, responsible parties, and a schedule for upkeep and maintenance. Alternatively, the parcel may be donated to a conservancy.

MM BIO-2.4 Impacted coastal sage scrub vegetation that cannot be avoided, including that which is impacted due to brush-clearing requirements, shall be replaced at a minimum 2:1 ratio under a mitigation plan approved by the CDFG. If replacement within the area is not feasible, then an approved mitigation bank shall be used. For either on-site or off-site revegetation, a mitigation monitoring plan shall be prepared and approved by the CDFG prior to the issuance of a grading permit. The mitigation plan shall contain a restoration plan as outlined below.

A coastal sage scrub Restoration Plan shall be developed for the establishment of coastal sage scrub on the project site or at a suitable offsite location. The location of the restoration areas shall be contiguous with other open space areas, either on-site or off-site, and shall be dedicated in perpetuity as undisturbed open space areas. The restoration program shall contain the following items:

(A) *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists, and maintenance personnel that will supervise and implement the plan will be specified.

(B) *Site selection*. The site(s) for mitigation will be determined in coordination with the client and resource agencies.

(C) *Site preparation and planting implementation*. The site preparation will include (1) protection of existing native species; (2) trash and weed removal; (3) native species salvage and reuse (i.e., duff); (4) soil treatments (i.e., imprinting, decompacting); (5) temporary irrigation installation; (6) erosion control measures (i.e., rice or willow wattles); (7) seed mix application; and (8) container species planting.

(D) *Schedule*. A schedule will be developed which includes planting to occur in late fall and early winter, between October and January 30.

(E) *Maintenance plan/guidelines*. The maintenance plan will include (1) weed control; (2) herbivory control; (3) trash removal; (4) irrigation system maintenance; (5) maintenance training; and (6) replacement planting.

(F) *Monitoring Plan*. The monitoring plan will include (1) qualitative monitoring (i.e., photographs and general observations); (2) quantitative monitoring (i.e., randomly placed transects); (3) performance criteria as approved by the resource agencies; (4) monthly reports for the first year, and bimonthly thereafter; (5) annual reports for three to five years, which will be submitted to the resource agencies. The monitoring will be conducted for three to five years, depending upon the performance of the site or requirements set by the CDFG.

(G) *Long-term preservation*. Long-term preservation of the site will also be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development.

MM BIO-3 The potential establishment and expansion of exotic plant species into newly graded areas should be minimized by seeding disturbed areas with a native grassland mix applied in conjunction with mulch and tackifier as soon as grading activities are completed. Landscaping on the site should contain as much native California species of trees, shrubs, and groundcovers appropriate to Los Angeles County and the project vicinity as possible. This would provide foraging opportunities for native wildlife. Appropriate native species include trees, such as coast live oaks; shrubs; blue elderberry; coffeeberry; and native grasses, such as purple and foothill needlegrass.

MM BIO-4.1 If the construction phase occurs during the avian breeding season, generally February through August 1, then prior to the onset of construction activities, surveys for nesting special status and/or migratory avian species and raptors will be conducted on the affected portion of the site following USFWS and/or CDFG guidelines. Additionally, a survey for nursing special status bats will be conducted on the affected portion of the site. If no active avian nests or bat nurseries are identified on or within 500 feet of the construction areas, no further mitigation is necessary.

Alternatively, to avoid impacts, the project sponsor can begin construction after the previous breeding season for local raptors and other special status species has ended (generally after mid-August) and before the next breeding season begins (generally before February). Should special status species and/or raptors choose to nest in an area within 500 feet of active construction that was initiated after mid-August and prior to February of the following year, the project sponsor shall only be required to provide a buffer of 200 feet between activities and the nest site.

MM BIO-4.2 If active nests for avian species of concern, migratory species, or raptors or bat roosts that are occupied by nursing bats are found within the construction footprint or a 500-foot buffer zone, construction shall be delayed within the construction footprint and buffer zone until the young have fledged or appropriate mitigation measures responding to the specific situation are developed in consultation with CDFG.

MM BIO-5 Thirty (30) days prior to construction activities in areas of the upland impact zone, a qualified biologist shall conduct a survey to capture and relocate individual coastal western whiptails in order to avoid or minimize take of these sensitive species. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. Preconstruction surveys shall only be conducted in areas dominated by coastal sage scrub and chaparral or if construction will occur within 300 feet of

native upland habitat. Results of the surveys and relocation efforts shall be provided to CDFG and/or Los Angeles County Biologists in a Mitigation Status Report. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

MM BIO-6 Immediately prior to construction or grading activities, or as these activities are commencing, a survey shall be conducted by a qualified biologist to determine if individuals of San Diego Desert Woodrat (including unknown Woodrat houses) occur within the construction and/or grading zone. If located, individuals of this species shall be captured and translocated unharmed into areas of appropriate habitat (either on or off site) that are not subject to further disturbance.

Alternately, if the Applicant so desires, prior to construction, focused Woodrat surveys may be performed by a qualified biologist to determine if the Woodrat house observed on site is that of a San Diego Desert Woodrat. If this option is chosen, and no San Diego Desert Woodrats are found on site, then no further action is required. However, if San Diego Desert Woodrats are found within the construction or grading zone, then relocation, as described in paragraph one of this Mitigation Measure, shall be implemented.

MM BIO-7 Due to potentially suitable habitat present on the property for several special status species, the project applicant shall retain a qualified biologist or botanist to conduct a pre-construction survey of the area within the footprint area of impact and extended 50 feet outside of the impact areas. The survey shall be conducted according to CNPS and CDFG protocols, during the blooming period or immediately prior to the onset of project-related disturbances. The purpose of the pre-construction survey shall be to locate any special-status plant species that may be present within or directly adjacent to the areas on impact. These surveys shall be restricted to habitat types that could support special-status plant species that have the potential to occur in the project area, including the following listed plant species: Nevin's barberry, Braunton's milk-vetch, and slender-horned spineflower, as well as the following sensitive species: Parry's spineflower, Robinson's pepper-grass, Davidson's bush mallow, Brand's phacelia, and Plummer's mariposa lily.

Following the completion of the pre-construction survey, a report shall be submitted to the CDFG that includes, at a minimum, a description of methodology, including dates of field visits; the names of survey personnel with résumés; a list of references cited and persons contacted; and a map showing the location(s) of any special-status plants observed within or adjacent to the project site.

If no special-status plants are determined to be in the project area, then no further mitigation would be necessary. If special-status plants are determined to be present in or adjacent to the proposed area of impact, the project applicant shall implement the following measures:

(A) Special-status plant populations shall be avoided to the extent feasible. For those plants that cannot be avoided, they shall be transplanted to a mitigation site approved by CDFG and USFWS. Destroyed plant habitat shall be replaced at a ratio of 2 acres of replacement habitat for each acre of special-status plant habitat lost. The success criteria of the transplantation

program shall include 80 percent or more of the transplanted plants surviving five years after transplantation. Mitigation projects will be implemented and monitored annually for five years using success criteria developed in coordination with CDFG and USFWS.

(B) The mitigation plan will be submitted to the City, CDFG, and, if required, the USFWS for approval, prior to implementation.

MM BIO-8.1 The Applicant shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall require that stormwater runoff be prevented from flowing over unprotected slopes and that silt fencing shall be trenched in 100 feet from the outer limits of riparian vegetation and left in place during construction. Disturbed areas shall be stabilized as quickly as possible, using biotechnical techniques and reseeded with native plants.

MM BIO-8.2 Construction and operation of the proposed project shall avoid contamination of the intermittent drainage by incorporating the following provisions:

(A) California Stormwater Best Management Practices (BMPs) for Construction Activity, prepared by the California State Stormwater Quality Task Force, shall be incorporated into the construction plans. BMPs for Municipal Activities shall be incorporated into a long-term site management program. When implemented, BMPs would reduce operation-related impacts from sedimentation and contaminant loading to an insignificant level.

(B) Native plant species with minimum water and fertilizer requirements shall be selected for landscaping, to the extent feasible. Use of nitrogen fertilizers in landscaped areas shall be restricted and discouraged. Watering shall be kept to the minimum necessary to maintain new landscaping. Drip irrigation shall be used only until native landscaping is established.

(C) Compliance with Mitigation Measure HYD-3 and the inclusion of an analysis of sediment impacts on the intermittent channel.

(D) An informational packet outlining the details of this Mitigation Measure shall be created and distributed to each household.

MM BIO-9 All lighting along the perimeter of natural and easement areas shall be downcast luminaries with light patterns directed away from natural areas, as coordinated with a certified lighting engineer and project biologist. Additionally, trails shall be unlit through any natural or easement areas.

3.3.6 Cumulative Impacts

The primary effects of the proposed project, when considered with other projects in the region (as defined by the Verdugo Mountains and San Gabriel Mountains), would be the cumulative direct loss of vegetation associations, wildlife habitat, and local movement corridors. Specifically, past, present, and probable future projects in the vicinity of the proposed project are anticipated to permanently remove plant and wildlife resources within development areas. In addition, wildlife populations within the surrounding open-space patches or larger areas of habitat that are fragmented would be subject to increased risks of local extirpation. Although there would be local losses which would be adverse, the cumulative effect of the loss of nonsensitive plant and wildlife habitat in the would not be a significant impact because the San Raphael Hills, the Verdugo Mountains, and San Gabriel

Mountains, including the nearby Angeles National Forest and Los Padres National Forest, are expected to provide adequate protection of habitat for common plant and wildlife species in the region

Loss of sensitive or rare habitat, such as riparian and coastal sage scrub, within the localized areas would further decrease the amount of this habitat within the immediate area and add to the cumulative loss of these plant communities in the region. However, the relatively small area impacted by the proposed project, combined with the compensation (mitigated replacement ratios) for impacts to the riparian communities and coastal sage scrub would not constitute a cumulatively considerable impact because, regionally, there would be a net gain of at least 2:1.

Development in the vicinity of the project site and the implementation of the Arroyo Seco Master Plan would increase the potential for impacts on tributaries to the Arroyo Seco, as well as the Arroyo Seco itself. These additional cumulative projects could result in changes to water quality from urban runoff, potentially containing petroleum residues, and runoff of nutrients from residential or landscaped areas. These cumulative effects, if uncontrolled, will ultimately begin to affect the Arroyo Seco. The Arroyo Seco is known to support diverse riparian communities and several special-status species, including the federally endangered arroyo toad. These cumulative impacts are considered significant because they have the potential to substantially reduce the biological value of the Arroyo Seco if urban pollutants are excessive. However, implementation of SWPPP and use of California Stormwater BMPs during and after construction should help reduce these cumulative impacts to less-than-significant levels.

3.3.7 References

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